

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
29 July 2004 (29.07.2004)

PCT

(10) International Publication Number  
**WO 2004/062568 A3**

(51) International Patent Classification<sup>7</sup>: **A61K 51/04**,  
49/08, 49/00

(21) International Application Number:  
PCT/NO2004/000002

(22) International Filing Date: 9 January 2004 (09.01.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
20030115 9 January 2003 (09.01.2003) NO

(71) Applicant (for all designated States except US): **AMERSHAM HEALTH AS** [NO/NO]; Intellectual Property Dept., P.O. Box 4220 Nydalen, Nycoveien 1-2, 0401 Oslo (NO).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **SOLBAKKEN, Magne** [NO/NO]; Amersham Health AS, P.O. Box 4220 Nydalen, Nycoveien 1-2, 0401 Oslo, NO (NO). **ENGELL, Torggrim** [NO/NO]; Amersham Health AS, P.O. Box 4220 Nydalen, Nycoveien 1-2, 0401 Oslo (NO). **WADSWORTH, Harry, John** [GB/GB]; Amersham plc, The Grove Centre, Building 22 AL/18, White Lion Road,

HP7 9LL Amersham, Buckinghamshire (GB). **ARCHER, Collin, M** [US/GB]; The Grove Centre, White Lion Road, HP7 9LL Amersham, Buckinghamshire (GB).

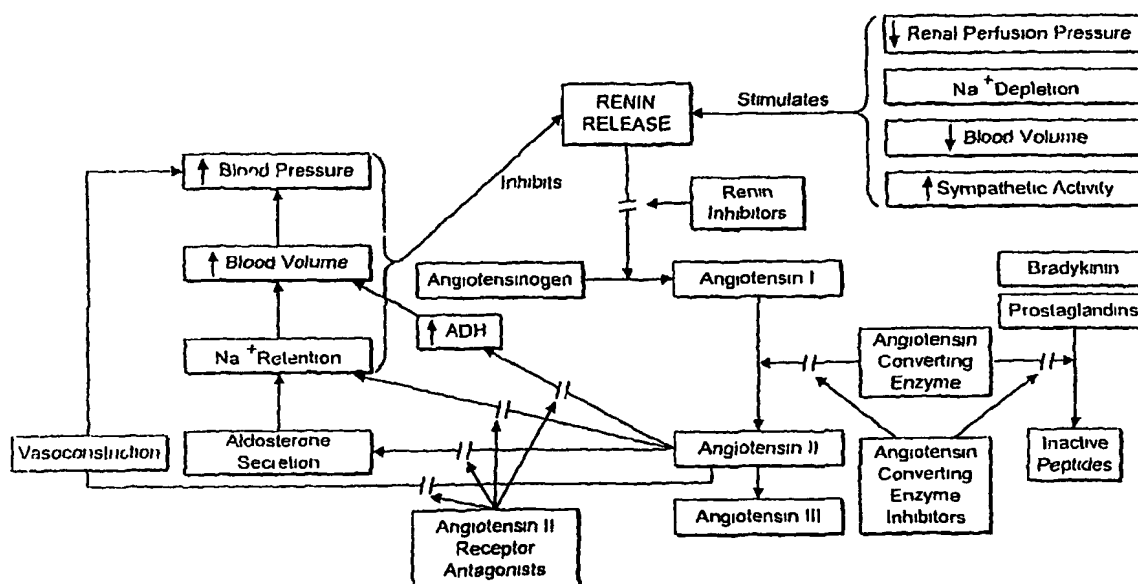
(74) Agents: **THORESEN, Liv-Heldi** et al.; Amersham Health AS, P.O. Box 4220 Nydalen, Nycoveien 1-2, 0401 Oslo (NO).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: CONJUGATE OF LOSARTAN, VALSARTAN, CANDESARTAN OR EPROSARTAN AND A CHELANT AS CONTRAST AGENT



(57) Abstract: The present invention relates to a contrast agent of Formula (I) V-L-Z; Where V is a non-peptidic vector having affinity for the Angiotensin II receptor, L is a bond, a spacer or a linker moiety and Z represents a moiety detectable in an in vivo imaging procedure of a human or animal body.



**Published:**

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

**(88) Date of publication of the international search report:**  
30 September 2004

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/N02004/000002

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K51/04 A61K49/08 A61K49/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BIOSIS, CHEM ABS Data, EMBASE

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98/18496 A (COCKBAIN JULIAN ; KLAVENESS JO (NO); NAEVESTAD ANNE (NO); CUTHBERTSON) 7 May 1998 (1998-05-07) cited in the application page 5 - page 9 page 46 - page 47; claims 6,10-12; examples 2,5	1,2,5-10
X	WO 01/92283 A (COLLINS DOUGLAS A ; MAYO FOUNDATION (US); UNIV MINNESOTA (US); HOGENKA) 6 December 2001 (2001-12-06) page 4, paragraph 6 page 11, paragraph 10 - page 12, paragraph 3 page 76 - page 77 page 109; claims 26,29-32,35,42,54-58 ----- -/--	1,2,5-10

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents :

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*G\* document member of the same patent family

Date of the actual completion of the international search

7 July 2004

Date of mailing of the international search report

19/07/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Gonzalez Ramon, N

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/NO2004/000002

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 1997, no. 10, 31 October 1997 (1997-10-31) & JP 9 165378 A (SEITAI KINOU KENKYUSHO:KK), 24 June 1997 (1997-06-24) abstract -----	1,5-10
Y	WO 01/77145 A (INDREVOLL BAARD ; CUTHBERTSON ALAN (NO); NYCOMED IMAGING AS (NO)) 18 October 2001 (2001-10-18) cited in the application claims 16,17,24-26; example 6; table 1 -----	1-10
Y	WO 02/070018 A (MENDIZABAL MARIVI ; AMERSHAM PLC (GB); DIXON MARK (GB); STOREY ANTHONY) 12 September 2002 (2002-09-12) claims 3,4,6; table 1 -----	1-10
P,Y	WO 03/006491 A (INDREVOLL BAARD ; SOLBAKKEN MAGNE (NO); AMERSHAM HEALTH AS (NO); CUTHB) 23 January 2003 (2003-01-23) page 10; claims 12-17,23-25; example 1 -----	1-10
P,Y	WO 03/006070 A (ARCHER COLIN MILL ; AMERSHAM PLC (GB); WADSWORTH HARRY JOHN (GB); ENGE) 23 January 2003 (2003-01-23) page 4; claims 13-15; examples 5,6 -----	1-10

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/N02004/000002

## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
  
Although claims 9,10 are directed to a diagnostic method practised on the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/NO2004/000002

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9818496	A	07-05-1998	AT 249247 T	15-09-2003
			AU 733495 B2	17-05-2001
			AU 4786697 A	22-05-1998
			AU 4786897 A	22-05-1998
			AU 4786997 A	22-05-1998
			BG 103438 A	31-01-2000
			BR 9712683 A	19-10-1999
			CA 2270120 A1	07-05-1998
			CN 1440816 A	10-09-2003
			CN 1234742 A	10-11-1999
			CZ 9901494 A3	15-09-1999
			DE 69724817 D1	16-10-2003
			DE 69724817 T2	01-07-2004
			EP 0973552 A2	26-01-2000
			EP 0971747 A2	19-01-2000
			EP 0946202 A2	06-10-1999
			ES 2206689 T3	16-05-2004
			WO 9818501 A2	07-05-1998
			WO 9818496 A2	07-05-1998
			WO 9818497 A2	07-05-1998
			JP 2001503407 T	13-03-2001
			KR 2000052829 A	25-08-2000
			NO 991889 A	28-06-1999
			NZ 335596 A	27-10-2000
			US 6264914 B1	24-07-2001
			US 6051207 A	18-04-2000
			US 2003228254 A1	11-12-2003
			US 2002102215 A1	01-08-2002
			US 2001016587 A1	23-08-2001
			US 6264917 B1	24-07-2001
			US 6261537 B1	17-07-2001
			AU 4786797 A	22-05-1998
			EP 0991427 A2	12-04-2000
			WO 9818495 A2	07-05-1998
			JP 2002515889 T	28-05-2002
			AU 4787097 A	22-05-1998
			EP 0963209 A2	15-12-1999
			WO 9818498 A2	07-05-1998
			JP 2001502719 T	27-02-2001
			AU 733477 B2	17-05-2001
			AU 4718297 A	22-05-1998
			BG 103439 A	31-01-2000
			BR 9713978 A	02-05-2000
			CA 2269985 A1	07-05-1998
			CN 1238700 A	15-12-1999
			EP 1007101 A2	14-06-2000
			WO 9818500 A2	07-05-1998
			HU 0000357 A2	28-06-2000
WO 0192283	A	06-12-2001	AU 6972901 A	11-12-2001
			WO 0192283 A2	06-12-2001
			US 2002049155 A1	25-04-2002
JP 9165378	A	24-06-1997	NONE	
WO 0177145	A	18-10-2001	AU 5068301 A	23-10-2001
			CA 2405469 A1	18-10-2001
			CN 1436195 T	13-08-2003

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/NO2004/000002

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 0177145	A	EP 1272507 A2	08-01-2003
		JP 2003531835 T	28-10-2003
		WO 0177145 A2	18-10-2001
		US 2003204049 A1	30-10-2003
WO 02070018	A 12-09-2002	CA 2439579 A1	12-09-2002
		EP 1368064 A2	10-12-2003
		WO 02070018 A2	12-09-2002
WO 03006491	A 23-01-2003	BR 0210886 A	22-06-2004
		BR 0210965 A	08-06-2004
		CA 2450690 A1	23-01-2003
		CA 2452923 A1	23-01-2003
		EP 1404377 A2	07-04-2004
		EP 1404371 A2	07-04-2004
		WO 03006070 A2	23-01-2003
		WO 03006491 A2	23-01-2003
WO 03006070	A 23-01-2003	BR 0210886 A	22-06-2004
		BR 0210965 A	08-06-2004
		CA 2450690 A1	23-01-2003
		CA 2452923 A1	23-01-2003
		EP 1404377 A2	07-04-2004
		EP 1404371 A2	07-04-2004
		WO 03006070 A2	23-01-2003
		WO 03006491 A2	23-01-2003